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**LISTING OF THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**THE CLAIMS:**

1 1. (previously presented) In combination, a closed loop optical fiber for carrying  
2 information modulated on at least two optical carriers, a first one of the carriers having a  
3 first wavelength and a second one of the carriers having a second wavelength, at least two  
4 nodes at a first one of which first information modulated on the first carrier and second  
5 information modulated on the second carrier is to be recovered and transmitted, the first  
6 node comprising a first demultiplexer for demultiplexing the first carrier from the fiber, a  
7 second demultiplexer for demultiplexing the second carrier from the fiber, a first  
8 multiplexer for multiplexing the first carrier on the fiber, a second multiplexer for  
9 multiplexing the second carrier on the fiber, and apparatus for receiving and transmitting  
10 first and second information, the apparatus for receiving and transmitting first and second  
11 information comprising a first receiver for demodulating first information and a first  
12 transmitter for modulating first information on the first carrier before the first carrier is  
13 placed on the fiber by the first multiplexer, a second receiver for demodulating second  
14 information and a second transmitter for modulating second information on the second  
15 carrier before the second carrier is placed on the fiber by the second multiplexer, and first  
16 and second switches, wherein when the first carrier is not capable of transmitting first  
17 information over the fiber, the first information is modulated on the second carrier for  
18 transmission over the fiber.

1 2. (previously presented) In combination, a closed loop optical fiber for carrying  
2 information modulated on at least two optical carriers, a first one of the carriers having a  
3 first wavelength and a second one of the carriers having a second wavelength, at least two  
4 nodes at a first one of which first information modulated on the first carrier and second  
5 information modulated on the second carrier is to be recovered and transmitted, the first

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6 node comprising a first demultiplexer for demultiplexing the first carrier from the fiber, a  
7 second demultiplexer for demultiplexing the second carrier from the fiber, a first  
8 multiplexer for multiplexing the first carrier on the fiber, a second multiplexer for  
9 multiplexing the second carrier on the fiber, and apparatus for receiving and transmitting  
10 first and second information, the apparatus for receiving and transmitting first and second  
11 information comprising a first receiver for demodulating first information and a first  
12 transmitter for modulating first information on the first carrier before the first carrier is  
13 placed on the fiber by the first multiplexer, a second receiver for demodulating second  
14 information and a second transmitter for modulating second information on the second  
15 carrier before the second carrier is placed on the fiber by the second multiplexer, and first  
16 and second switches, wherein each of the first and second switches having first and  
17 second input ports and first and second output ports, each of the first and second switches  
18 having first and second states, the first state of each of the first and second switches  
19 coupling the respective first and second switch's first input port to its first output port and  
20 its second input port to its second output port, the second state of each of the first and  
21 second switches coupling the respective first and second switch's first input port to its  
22 second output port and its second input port to its first output port, the first receiver  
23 coupled to the first input port of the first switch, the second receiver coupled to the  
24 second input port of the first switch, the second output port of the first switch being  
25 coupled to the second input port of the second switch, the first output port of the second  
26 switch being coupled to the first transmitter, the second output port of the second switch  
27 being coupled to the second transmitter, wherein when the first carrier is not capable of  
28 transmitting first information over the fiber, the first information is modulated on the  
29 second carrier for transmission over the fiber.

1 3. (previously presented) The apparatus of claim 2 further comprising a third optical  
2 carrier having a third wavelength, the first demultiplexer also removing the third carrier  
3 from the fiber, the first multiplexer also placing the third carrier on the fiber, and  
4 apparatus for receiving and transmitting third information, the apparatus for receiving and  
5 transmitting third information comprising a third receiver for demodulating third  
6 information from the third carrier and a third transmitter for modulating third information

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7 on the third carrier before the third carrier is placed on the fiber by the first multiplexer,  
8 the fiber coupling the third carrier to the first demultiplexer and the first multiplexer  
9 coupling the third carrier to the fiber.

1 4. (original) The apparatus of claim 3 wherein each of the first and second switches  
2 has first, second and third input ports and first, second and third output ports, each of the  
3 first and second switches having first, second, third and fourth states, the first state of  
4 each of the first and second switches coupling its first input port to its first output port, its  
5 second input port to its second output port, and its third input port to its third output port,  
6 the second state of each of the first and second switches coupling its first input port to its  
7 second output port, its second input port to its first output port and its third input port to  
8 its third output port, the third state of each of the first and second switches coupling its  
9 first input port to its first output port, its second input port to its third output port, and its  
10 third input port to its second output port, and the fourth state of each of the first and  
11 second switches coupling its first input port to its third output port, its third input port to  
12 its first output port, and its second input port to its second output port, the first receiver  
13 being coupled to the first input port of the first switch, the second receiver being coupled  
14 to the second input port of the first switch and the third receiver being coupled to the  
15 third input port of the first switch, the third output port of the first switch being coupled  
16 to the third input port of the second switch, the node controlling the first and second  
17 switches so that when one of the first and third carriers is not capable of transmitting a  
18 respective one of first and third information over the fiber, the respective one of first and  
19 third information is modulated on the second carrier for transmission over the fiber.

1 5. (original) The apparatus of claim 4 further comprising a fourth optical carrier  
2 having a fourth wavelength, the fiber coupling the fourth optical carrier through at least  
3 one of the first and second demultiplexers and through at least one of the first and second  
4 multiplexers so that the fourth optical carrier passes through the first node unaffected.

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1 6. (original) The apparatus of claim 5 wherein the fiber couples the fourth optical  
2 carrier through the first and second demultiplexers and through the first and second  
3 multiplexers.

1 7. (original) The apparatus of claim 1 further comprising a third optical carrier  
2 having a third wavelength, the fiber coupling the third optical carrier through at least one  
3 of the first and second demultiplexers and through at least one of the first and second  
4 multiplexers so that the third optical carrier passes through the first node unaffected.

1 8. (original) The apparatus of claim 7 wherein the fiber couples the third optical  
2 carrier through both of the first and second demultiplexers and through both of the first  
3 and second multiplexers so that the third optical carrier passes through the first node  
4 unaffected.

1 9 – 22 (canceled).

1 23. (previously presented) A method for carrying information modulated on at least  
2 two optical carriers, a first one of the carriers having a first wavelength and a second one  
3 of the carriers having a second wavelength, and for recovering and transmitting first  
4 information modulated on the first carrier and second information modulated on the  
5 second carrier, the method comprising:

6 demultiplexing the first carrier from a fiber;

7 demultiplexing the second carrier from the fiber;

8 multiplexing the first carrier on the fiber;

9 multiplexing the second carrier on the fiber; and

10 receiving and transmitting first and second information, wherein receiving and  
11 transmitting first and second information comprising:

12 demodulating first information and modulating first information on the  
13 first carrier before the first carrier is placed on the fiber; and

14 demodulating second information and modulating second information on  
15 the second carrier before the second carrier is placed on the fiber, wherein when

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- 16 the first carrier is not capable of transmitting first information over the fiber, the  
17 first information is modulated on the second carrier for transmission over the fiber.

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